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| APPLICATION NO.                     | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO.   |
|-------------------------------------|-------------|----------------------|---------------------|--------------------|
| 10/605,687                          | 10/17/2003  | Dean Willberg        | 56.0758             | 2686               |
| 27452                               | 7590        | 09/19/2005           |                     |                    |
| SCHLUMBERGER TECHNOLOGY CORPORATION |             |                      |                     | EXAMINER           |
| IP DEPT., WELL STIMULATION          |             |                      |                     | RICHARD, CHARLES R |
| 110 SCHLUMBERGER DRIVE, MD1         |             |                      |                     | ART UNIT           |
| SUGAR LAND, TX 77478                |             |                      |                     | PAPER NUMBER       |
|                                     |             |                      |                     | 1712               |

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 10/605,687             | WILLBERG ET AL.     |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | C. R. Richard          | 1712                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-14 is/are pending in the application.  
 4a) Of the above claim(s) 12-14 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-11 is/are rejected.  
 7) Claim(s) 8 is/are objected to.  
 8) Claim(s) 1-14 are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 17 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/17/03 &amp; 4/19/04</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-11, drawn to an oilfield treatment composition, classified in class 507, subclass 117.
  - II. Claims 12-14, drawn to oil field treatment methods, classified in class 166, subclass 300.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product could be used in processes outside the oilfield and not involving a filter cake such as a process for getting an insoluble material into solution and then reacting it directly with an acid produced from an acid precursor, like the esterification of hydroxyacetic acid (from a homopolymer) with (calcium) oxalate in aqueous solution.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Applicant's agent, Thomas Mitchell, on September 8, 2005, a provisional election was made without traverse to prosecute the invention of group I (claims 1-11). Affirmation of this election must be made by Applicant in replying to this Office action. Claims 12-14 are withdrawn from further consideration by the Examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Drawings***

2. The drawings are objected to because the title/legend in figure 1 does not seem to match up with what is depicted in the graph. One mole of calcite is a fixed amount, yet the graph shows various amounts dissolved.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the Examiner,

the Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

3. The disclosure is objected to because of the following informalities. The section heading just ahead of paragraph 8 refers to sequences, yet the section in question concerns the drawings. Appropriate correction is required.

***Claim Objections***

4. Claim 8 is objected to because of the following informalities. The first "word" of the claim is "e"; apparently it should be "The" instead. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Cantu et al. in US Patent 4,957,165. Cantu teaches a well treatment process and corresponding fluid.

Cantu teaches as a component in a fluid, condensation products of hydroxyacetic (glycolic) acid with itself or compounds containing other hydroxy, carboxylic acid or

hydroxycarboxylic acid moieties; these products are solids and insoluble in aqueous and hydrocarbon media (see column 2, lines 27-45). The condensation product has a variable particle size distribution (see column 3, lines 10-12). The hydroxyacetic acid condensation product can be used as the sole fluid loss additive or in combination with other fluid loss additives (see column 3, lines 25-30). Calcium carbonate may be used as another fluid loss additive and will dissolve in acid (see column 1, lines 60-64).

7. Claims 1-5, 7 and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Cantu et al. in US Patent 4,986,354. Cantu teaches microencapsulated oil field chemicals.

The reference teaches compositions made by placing an oil field chemical in microcapsules made from condensation products of hydroxyacetic acid alone or with compounds containing other hydroxy, carboxylic acid or hydroxycarboxylic acid moieties such as lactic acid (see column 1, lines 37-47 and column 2, lines 8-15). The condensation products are solids and insoluble in aqueous and hydrocarbon media (see column 1, lines 50-65). A variety of oil field chemicals that fall in the class of solid acid reactive materials may be included in the capsules, and in particular, borate cross linkers (see column 2, lines 42 to column 3, line 7). The microcapsules may be placed in an oil-based fluid (see column 3, lines 40-45); this fluid would effectively act as/form a hydrolysis-delaying coating for the capsules.

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-7 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantu et al. in US Patent 4,986,354. The teachings of Cantu have been detailed above.

Cantu teaches all of the limitations of the rejected claims in the proper context, except for an explicit teaching of any of the specific species called out in claim 6; Cantu does teach the use of borate cross linkers in the same context as borax in claim 6, however. As borax is a very common variety of borate cross linker, the teaching of borate cross linkers by Cantu would have made it obvious to one of ordinary skill in the art to employ borax as in claim 6. The rejected claims are thus obvious.

10. Claims 1 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantu et al. in US Patent 4,957,165 in view of Johnson et al. in US Patent 5,325,921. The teachings of Cantu have been detailed above. Johnson's teachings concern fluid loss control particulates.

Cantu teaches all of the limitations of the rejected claims in the proper context, but does not teach all of the specific species called out in claim 9. Cantu does teach calcium carbonate as a fluid loss prevention agent as seen above; Johnson also teaches this (see column 3, lines 62-66 of Johnson). Johnson teaches that metal hydroxides may also be used in place of calcium carbonate and similar fluid loss agents (see column 4, lines 64-66); this is not taught by Cantu. One of ordinary skill in the art would have realized that this teaching of metal hydroxides includes aluminum and magnesium hydroxides as these are commonly used in oil field applications, including in fluid loss prevention.

From these teachings, it would have been obvious to one of ordinary skill in the art to use magnesium or aluminum hydroxide in place of calcium carbonate in the compositions of Cantu, thus rendering the rejected claims obvious.

11. Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cantu et al. in US Patent 4,957,165 in view of Lee in US Patent 6,817,414. The teachings of Cantu have been detailed above. Lee's teachings concern filter cake cleanup.

Cantu teaches all of the limitations of the rejected claims in the proper context, but does not teach all of the specific species called out in claim 7, such as polylactic acid. Lee teaches that the acidic by-product of polyglycolic (polyhydroxyacetic) acid hydration [hydrolysis] may be used in removing filter cake (see Abstract); polylactic acid may be used in place of the polyglycolic (see column 3, lines 15-27).

From these teaching it would have been obvious to one of ordinary skill in the art to use polylactic acid in place of the polymer of hydroxyacetic acid in the compositions of Cantu, thus rendering the rejected claims obvious.

### ***Double Patenting***

12. Claims 1, 4, 7 and 9-10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4-5, 8, 10, and 21-23 of copending Application No. 10/605,784. Although the conflicting claims are not identical, they are not patentably distinct from each other. Compositions of the rejected claims are taught by or are obvious over compositions in the cited method claims of 10/605,784.

In particular, claims 4 and 21 of 10/605,784 separately teach compositions within the scope of rejected claim 1. Claim 8 of 10/605,784 teaches compositions within the scope of rejected claim 4. Claim 22 of 10/605,784 teaches compositions within the scope of rejected claim 7. Claims 5 and 23 of 10/605,784 separately teach compositions within the scope of rejected claim 9.

A combination of claims 4 and 10 of 10/605,784 render rejected claim 10 obvious. Claim 4 of 10/605,784 teaches all of the limitations of rejected claim 10, except for the hydrolysis delaying coating which is taught by claim 10 of 10/605,784. It would have been obvious to one of ordinary skill in the art to use a delay coating to give time for the composition to travel downhole where it is needed before hydrolysis releases the active agent.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. U.S. Patent Nos. 4,848,467; 4,961,466; 5,439,057; 5,680,900 and 6,394,185 disclose compositions at least similar to those of the present invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. R. Richard whose telephone number is 571-272-8502. The examiner can normally be reached on M-Th, 8am-6pm and alternate Fridays, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
PHILIP TUCKER  
PRIMARY EXAMINER  
ART UNIT 1712

